UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/858,287	05/15/2001	Clarence T. Tegreene	1788-7	2917

996 7590 04/14/2004

GRAYBEAL, JACKSON, HALEY LLP
155 - 108TH AVENUE NE
SUITE 350
BELLEVUE, WA 98004-5901

EXAMINER	
YENKE, BRIAN P	

ART UNIT	PAPER NUMBER
2614	8

DATE MAILED: 04/14/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/858,287	TEGREENE ET AL.	
	Examiner	Art Unit	
	BRIAN P. YENKE	2614	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☐ Responsive to communication(s) filed on _____.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-57* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-57* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *15 May 2001* is/are: a)☐ accepted or b)☒ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date *4, 6 & 7*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Drawings

1. Figure 1 should be designated by a legend such as --Prior Art-- because only that which is old is illustrated. See MPEP § 608.02(g). A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

2. The drawings are objected to because Fig 7, beam "32" should be "52" as described in the specification. A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 1-57 are rejected under 35 U.S.C. 103(a) as being unpatentable over Applicant's Admitted Prior Art (Fig 1) in view of Browning, US 4,951,150.

In considering claims 1, 4, 6 and 7,

a) the claimed a projection screen including a scan surface and a projection surface having a region of adjustable brightness is met by AAPA, Fig 1 which discloses a scan surface 38 and a projection surface 36 which includes regions (44) of adjustable brightness via erase beam 40 and image beam 42

b) the claimed a beam generator operable to direct an electromagnetic off-beam and an electromagnetic on-beam onto the scan surface is met by beam generator 26 which includes erase beam 40 and image beam 42, where the erase beam turns the brightness off (i.e. black) and where the image beam illuminates the region to a desired brightness region via image generator 26.

However, as disclosed by AAPA, Fig 1 generates a off-burst (beam) which erases the entire region of the scan surface 38. Thus AAPA does not explicitly recite changing the brightness of a region via an off-beam and changing the brightness of "the region" with an on-beam.

Although, the erasing of a region, where the region can be erased line-by-line or in it's entirety, which then can be written to either line-by-line or in it's entirety is conventional in the art, the examiner nonetheless incorporates Browning, US 4,951,150.

Browning discloses an optical projection system, which can either erase an image line-by-line or in it's entire (full erase) (col 5, line 27-41, Fig 1-17), providing the viewer/designer a flexible projection system.

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify AAPA (Fig 1) which discloses erasing the entire region of the screen and then writes the image onto the screen, with Browning by providing a

system which is able to erase the screen either line by line or fully, in order to provide the user/designer a conventional flexible optical projection system.

In considering claim 2,

a) the claimed the scan surface is parallel to the projection surface is met by AAPA where scan surface 38 is parallel to projection surface 36 (Fig 1).

*b) the claimed beam generator...*is met by image generator 26 which projects an off-burst and on beam onto scan surface 38 (Fig 1).

In considering claim 3,

AAPA does not disclose generating the on and off beam simultaneously. As stated above, AAPA discloses generating an erase burst (beam) prior to the generating an on beam.

As incorporated above, Browning discloses a system where the erasing can be performed line by line or full screen, where the writing can be performed simultaneously with the erasing in the line by line mode.

In considering claim 5,

*a) the claimed a display screen...*is met by display screen 46 (Fig 1).

*b) the claimed wherein the projection screen...*is met by projection screen 36 which projects the image onto display screen 46 via optics 47 (Fig 1).

In considering claim 8,

However, neither AAPA nor Browning disclose the scan and projection surface being the same surface.

AAPA discloses system where the scan surface is parallel to the projection surface where the projection surface 36 is located behind scan surface 38 in order to display image 28 onto display screen 46.

Therefore, it would have been obvious to one of ordinary skill in the art to modify AAPA and Browning which discloses a projection surface 36 and scan surface 38 which displays an image 28 onto screen 46, by using the same surface for the scan and projection surface if the display is located/can be display via the scan surface area.

In considering claims 9-12, 14-16,

a) the claimed a screen is met by AAPA, Fig 1 which discloses a scan surface 38 and a projection surface 36 which includes regions (44) of adjustable brightness via erase beam 40 and image beam 42

b) the claimed a beam generator is met by beam generator 26 which includes erase beam 40 and image beam 42, where the erase beam turns the brightness off (i.e. black) and where the image beam illuminates the region to a desired brightness region via image generator 26.

However, as disclosed by AAPA, Fig 1 generates a off-burst (beam) which erases the entire region of the scan surface 38. Thus AAPA does not explicitly recite changing the brightness of a region via an off-beam and changing the brightness of "the region" with an on-beam.

For motivation refer to claim 1 above.

In considering claim 13,

a-b) the second beam has a duration is met where the image generator can use a look-up table or other technique to determine a striking time or intensity of the on-beam (2nd beam) that will set the regions 44 to the desired reflectivity level (AAPA, spec, page 5, lines 21-24).

In considering claim 17,

*The claimed illuminator...*is met by illuminator 24 (AAPA, Fig 1).

In considering claims 18, and 22-23

a) the claimed a screen is met by AAPA, Fig 1 which discloses a scan surface 38 and a projection surface 36 which includes regions (44) of adjustable brightness via erase beam 40 and image beam 42

b) the claimed a beam generator is met by beam generator 26 which includes erase beam 40 and image beam 42, where the erase beam turns the brightness off (i.e. black) and where the image beam illuminates the region to a desired brightness region via image generator 26.

However, as disclosed by AAPA, Fig 1 generates a off-burst (beam) which erases the entire region of the scan surface 38. Thus AAPA does not explicitly recite changing the brightness of a region via an off-beam and changing the brightness of "the region" with an on-beam.

For motivation refer to claim 1 above.

In considering claims 19-20

a-b) the second beam has an intensity is met where the image generator can use a look-up table or other technique to determine a striking time or intensity of the on-beam

(2nd beam) that will set the regions 44 to the desired reflectivity level (AAPA, spec, page 5, lines 21-24).

In considering claim 21,

The claimed illuminator...is met by illuminator 24 (AAPA, Fig 1).

In considering claims 24 and 27,

a) the claimed a screen is met by AAPA, Fig 1 which discloses a scan surface 38 and a projection surface 36 which includes regions (44) of adjustable brightness via erase beam 40 and image beam 42

b) the claimed a beam generator is met by beam generator 26 which includes erase beam 40 and image beam 42, where the erase beam turns the brightness off (i.e. black) and where the image beam illuminates the region to a desired brightness region via image generator 26.

However, as disclosed by AAPA, Fig 1 generates a off-burst (beam) which erases the entire region of the scan surface 38. Thus AAPA does not explicitly recite changing the brightness of a region via an off-beam and changing the brightness of "the region" with an on-beam.

For motivation refer to claim 1 above.

In considering claim 25,

a) the claimed the scan surface is parallel to the projection surface is met by AAPA where scan surface 38 is parallel to projection surface 36 (Fig 1).

*b) the claimed beam generator...*is met by image generator 26 which projects an off-burst and on beam onto scan surface 38 (Fig 1).

In considering claim 26,

*a) the claimed illuminator...*is met by illuminator 24 (AAPA, Fig 1).

*b) the claimed a display screen...*is met by display screen 46 which faces projection screen 36 (Fig 1).

*c) the claimed wherein the projection screen...*is met where projection 36 projects image 28 onto display screen 46 (Fig 1).

In considering claims 28-29, 32

a) the claimed a screen is met by AAPA, Fig 1 which discloses a scan surface 38 and a projection surface 36 which includes regions (44) of adjustable brightness via erase beam 40 and image beam 42

b) the claimed a beam generator is met by beam generator 26 which includes erase beam 40 and image beam 42, where the erase beam turns the brightness off (i.e. black) and where the image beam illuminates the region to a desired brightness region via image generator 26.

However, as disclosed by AAPA, Fig 1 generates a off-burst (beam) which erases the entire region of the scan surface 38. Thus AAPA does not explicitly recite changing the brightness of a region via an off-beam and changing the brightness of "the region" with an on-beam.

For motivation refer to claim 1 above.

In considering claims 30-31

a-b) the second beam has an intensity is met where the image generator can use a look-up table or other technique to determine a striking time or intensity of the on-beam (2^{nd} beam) that will set the regions 44 to the desired reflectivity level (AAPA, spec, page 5, lines 21-24).

In considering claim 33,

*the claimed illuminator...*is met by illuminator 24 (AAPA, Fig 1).

In considering claims 34 and 36,

a) the claimed a screen is met by AAPA, Fig 1 which discloses a scan surface 38 and a projection surface 36 which includes regions (44) of adjustable brightness via erase beam 40 and image beam 42

b) the claimed a beam generator is met by beam generator 26 which includes erase beam 40 and image beam 42, where the erase beam turns the brightness off (i.e. black) and where the image beam illuminates the region to a desired brightness region via image generator 26.

However, as disclosed by AAPA, Fig 1 generates a off-burst (beam) which erases the entire region of the scan surface 38. Thus AAPA does not explicitly recite changing the brightness of a region via an off-beam and changing the brightness of "the region" with an on-beam.

For motivation refer to claim 1 above.

In considering claim 35,

a) the claimed the scan surface is parallel to the projection surface is met by AAPA where scan surface 38 is parallel to projection surface 36 (Fig 1).

*b) the claimed beam generator...*is met by image generator 26 which projects an off-burst and on beam onto scan surface 38 (Fig 1).

In considering claim 37,

a) the claimed a screen is met by AAPA, Fig 1 which discloses a scan surface 38 and a projection surface 36 which includes regions (44) of adjustable brightness via erase beam 40 and image beam 42

b) the claimed a light emitter is met by beam generator 26 which includes erase beam 40 and image beam 42, where the erase beam turns the brightness off (i.e. black) and where the image beam illuminates the region to a desired brightness region via image generator 26.

However, as disclosed by AAPA, Fig 1 generates a off-burst (beam) which erases the entire region of the scan surface 38. Thus AAPA does not explicitly recite changing the brightness of a region via an off-beam and changing the brightness of "the region" with an on-beam.

For motivation refer to claim 1 above.

In considering claims 38-39,

The examiner incorporates the applicant's own disclosure which states that it is known that the beams/light can be in the visible, invisible spectrum (page 4, line 6-8).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify AAPA and Browning, which disclose an optical projection system which can generating an erase beam/image beam line by line or full frame, by using conventional system which use either visible or invisible light, thus providing the designer flexibility in selecting conventional components.

In considering claims 40-42,

The examiner incorporates the applicant's own disclosure which states that a row of devices, row of organic light-emitting device are convention in generating a beam/light (page 31, line 11-25).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify AAPA and Browning, which disclose an optical projection system which can generating an erase beam/image beam line by line or full frame, by using conventional system which use either a row of devices or row of organic light-emitting devices, in order to provide the designer flexibility in selecting conventional components in the design of the system.

In considering claim 43,

a) the claimed a screen is met by AAPA, Fig 1 which discloses a scan surface 38 and a projection surface 36 which includes regions (44) of adjustable brightness via erase beam 40 and image beam 42

b) the claimed a light emitter is met by beam generator 26 which includes erase beam 40 and image beam 42, where the erase beam turns the brightness off (i.e. black) and

where the image beam illuminates the region to a desired brightness region via image generator 26.

However, as disclosed by AAPA, Fig 1 generates a off-burst (beam) which erases the entire region of the scan surface 38. Thus AAPA does not explicitly recite changing the brightness of a region via an off-beam and changing the brightness of "the region" with an on-beam.

For motivation refer to claim 1 above.

In considering claims 44-45,

The examiner incorporates the applicant's own disclosure which states that it is known that the beams/light can be in the visible, invisible spectrum (page 4, line 6-8).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify AAPA and Browning, which disclose an optical projection system which can generating an erase beam/image beam line by line or full frame, by using conventional system which use either visible or invisible light, thus providing the designer flexibility in selecting conventional components.

In considering claims 46-47, 49-50 and 54-57

a) the claimed changing the brightness of a region in a first direction is met by image generator 26 which includes erase beam 40

b) the claimed changing the brightness in a second direction with a second electromagnetic beam is met by image generator 26 which includes an image beam 42,

where the erase beam turns the brightness off (i.e. black) and where the image beam illuminates the region to a desired brightness region via image generator 26.

However, as disclosed by AAPA, Fig 1 generates a off-burst (beam) which erases the entire region of the scan surface 38. Thus AAPA does not explicitly recite changing the brightness of a region via an off-beam and changing the brightness of "the region" with an on-beam.

For motivation refer to claim 1 above.

In considering claim 48,

AAPA does not disclose generating the on and off beam simultaneously. As stated above, AAPA discloses generating an erase burst (beam) prior to the generating an on beam.

As incorporated above, Browning discloses a system where the erasing can be performed line by line or full screen, where the writing can be performed simultaneously with the erasing in the line by line mode.

In considering claims 51-52,

The claimed changing the brightness of the region in the second direction...met where the image generator can use a look-up table or other technique to determine a striking time or intensity of the on-beam (2^{nd} beam) that will set the regions 44 to the desired reflectivity level (AAPA, spec, page 5, lines 21-24).

In considering claim 53,

the claimed illuminator...is met by illuminator 24 (AAPA, Fig 1).

Conclusion

4. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure—please refer to cited references on attached form PTO-892.

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Brian Yenke whose telephone number is (703) 305-9871. The examiner work schedule is Monday-Thursday, 0730-1830 hrs.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's Supervisor, John W. Miller, can be reached at (703)305-4795.

Any response to this action should be mailed to:

Commissioner of Patents and Trademarks

Washington, D.C. 20231

or faxed to:

(703) 872-9314

Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal Drive, Arlington, VA, Sixth Floor (Receptionist). Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Technology Center 2600 Customer Service Office whose telephone number is (703)305-HELP.

General information about patents, trademarks, products and services offered by the United States Patent and Trademark Office (USPTO), and other related information is available by contacting the USPTO's General Information Services Division at:

800-PTO-9199 or 703-308-HELP

(FAX) 703-305-7786

(TDD) 703-305-7785

An automated message system is available 7 days a week, 24 hours a day providing informational responses to frequently asked questions and the ability to order certain documents. Customer service representatives are available to answer questions, send materials or connect customers with other offices of the USPTO from 8:30 a.m. - 8:00p.m. EST/EDT, Monday-Friday excluding federal holidays.

For other technical patent information needs, the Patent Assistance Center can be reached through customer service representatives at the above numbers, Monday through Friday (except federal holidays) from 8:30 a.m. to 5:00 p.m. EST/EDT.

General information brochures can also be obtained in person from the Patent Search Room located in Crystal Plaza 3, Room 1A03, 2021 South Clark Place, Arlington, VA 22202.

The Patent Electronic Business Center (EBC) allows USPTO customers to retrieve data, check the status of pending actions, and submit information and

applications. The tools currently available in the Patent EBC are Patent Application Information Retrieval (PAIR) and the Electronic Filing System (EFS). PAIR (http://pair.uspto.gov) provides customers direct secure access to their own patent application status information, as well as to general patent information publicly available. EFS allows customers to electronically file patent application documents securely via the Internet. EFS is a system for submitting new utility patent applications and pre-grant publication submissions in electronic publication-ready form. EFS includes software to help customers prepare submissions in extensible Markup Language (XML) format and to assemble the various parts of the application as an electronic submission package. EFS also allows the submission of Computer Readable Format (CRF) sequence listings for pending biotechnology patent applications, which were filed in paper form.

BRIAN P. YENKE
Primary Examiner
Art Unit 2614

B.P.Y
11 April 2004